

**REMARKS**

Claims 1-13 are pending in the present application.

Claims 1-13 have been rejected.

Claims 1, 3 and 13 have been amended.

Reconsideration of the claims is respectfully requested.

**I. CLAIM OBJECTIONS**

The February 20, 2007 Office Action objected to Claims 3-7 due to certain informalities.

In response, the Applicants have amended Claim 3 to change the expression “tack of coins” to read “stack of coins.” The Applicants have also amended Claim 3 to change the expression “absence of coin” to read “absence of coins.” The Applicants respectfully submit that these amendments provide appropriate corrections to the claims.

**II. CLAIM REJECTIONS -- 35 U.S.C. § 112**

The February 20, 2007 Office Action also objected to Claims 1-9 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. In particular, the relationship between the element “a sensor” in Claim 1 and the element “at least one sensor” in Claim 1 was held to be ambiguous. In response, the Applicants have amended Claim 1 to claim a sensor array that comprises at least one sensor. The Applicants respectfully submit that these amendments provide appropriate corrections to the claims.

### III. CLAIM REJECTIONS -- 35 U.S.C. § 102

The February 20, 2007 Office Action rejected Claim 13 under 35 U.S.C. § 102(b) as being as being anticipated by United States Patent No. 6,371,845 to Ishida et al. ("Ishida"). The Applicants respectfully traverse this rejection.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131, p. 2100-76 (8th ed., rev. 4, October 2005) (*citing In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990)). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. *Id.* (*citing Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987)).

The current rejection states:

The coin dispenser disclosed by Ishida is operated by performing steps comprising establishing a predetermined height of stack of coins 41 correlated to a predetermined number of coins in said stack (see Figures 2 and 3), sensing the presence of coins at said predetermined height (via sensor 23) and generating a signal in response thereto (see column 6, lines 47-56), storing the number of coins contained in a full stack of coins in response to said sensor signal (via RAM 13), and counting the number of dispensing operations and subtracting said number of dispensing operations from said stored number of coins in a full stack to determine the number of coins remaining in the stack (see Figure 5). (February 20, 2007 Office Action, Page 3, Lines 9-17)

The Applicants have amended Claim 13 to claim a method of accounting for coins that are dispensed from a coin stack that senses the presence of the coins at a selected height within the coin receptacle. The *Ishida* method only detects a full stack of coins or an empty stack of coins. The Applicants' method can detect the coins at any level in the receptacle by using the sensor array of the Applicants' invention. The Applicants respectfully submit that the amendment of Claim 13 distinguishes over the *Ishida* reference.

Accordingly, the Applicants respectfully request the Examiner to withdraw the § 102 anticipation rejection of Claim 13, as amended.

#### IV. CLAIM REJECTIONS -- 35 U.S.C. § 103

The February 20, 2007 Office Action rejected Claims 1-12 under 35 U.S.C. § 103(a) as follows.

(1) Claims 1, 3-8 and 10-12 were rejected as being obvious over United States Patent Application Publication No. 2004/0045787 to Thomas Zimmerman ("Zimmerman") in view of United States Patent No. 4,371,783 to Grimmell et al. ("Grimmell").

(2) Claim 2 was rejected as being obvious over *Zimmerman* in view of *Grimmell* and further in view of United States Patent No. 5,755,618 to Ewald Mothwurf ("Mothwurf").

(3) Claim 9 was rejected as being obvious over *Zimmerman* in view of *Grimmell* and further in view of United States Patent No. 4,746,319 to Zwieg et al. ("Zwieg").

The Applicants respectfully traverse these rejections.

During *ex parte* examinations of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the applicant to produce evidence of non-obviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 USPQ 870, 873 (Fed. Cir. 1985).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to

make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not be based on an applicant's disclosure. MPEP § 2142.

Claims 1, 3-8 and 10-12 were rejected as being obvious over *Zimmerman* in view of *Grimmell*. The *Zimmerman* reference discloses a coin presence sensor 5 on one side of a coin receptacle 2. The *Zimmerman* reference teaches the use of a sensor 11 that comprises a light transmitting device and a light receiving device. In the *Zimmerman* sensor device 11 the light is supposed to be reflected from a coin 3 in the receptacle. The *Zimmerman* apparatus does not provide any means (such as a mask and access port) for preventing the light receiving device in sensor 11 from exposure to light from the light transmitting device is sensor 11. Therefore, the sensor 11 would always "sense" that there is a coin 3 in the receptacle whether a coin 3 was actually present or not. In short, the *Zimmerman* device shown in Figure 6 is not operable to achieve its stated goal. The inventor seems to be completely unaware that this problem even exists in this particular embodiment of the *Zimmerman* device.

The February 20, 2007 Office Action suggested that the deficiencies of the *Zimmerman* reference could be remedied incorporating the mask of the *Grimmell* reference into the sensor 11 of the *Zimmerman* reference and that it would have been obvious to one of ordinary skill in the art to do so. (February 20, 2007 Office Action, Page 4, Line 18 to Page 5, Line 3). The Applicants respectfully traverse these assertions.

There is no suggestion in the *Zimmerman* reference that the sensor 11 of *Zimmerman* is not operable. Therefore, there would have been no reason to assume that any additional structure would be required to make the *Zimmerman* sensor 11 operable. In particular, there

would have been no obvious reason to assume it would be advantageous to use a mask of the type that is disclosed in the *Grimmell* reference. The Applicants respectfully submit that the concept of using such a mask in the Zimmerman sensor 11 does not come from the prior art but comes from the Applicants' disclosure.

Evidence of a motivation to combine prior art references must be clear and particular if the trap of "hindsight" is to be avoided. *In re Dembicza*k, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999) (Evidence of a suggestion, teaching or motivation to combine prior art references must be "clear and particular." "Broad conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence.'"). *In re Roufett*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed.Cir. 1998) ("[R]ejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be 'an illogical and inappropriate process by which to determine patentability.'")

The claims as a whole must be considered. The claims must not be dismantled and considered on the basis of individual features. It is well settled that "the actual determination of the issue requires an evaluation in the light of the findings in those inquiries of the obviousness of the claimed invention as a whole, not merely the differences between the claimed invention and the prior art." *Graham v. John Deere Co.*, 383 U.S. 17 (1966). "It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that

‘[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.’ *In re Fitch*, 972 F.2d 1260 (Fed. Cir. 1992).

The Applicants respectfully submit that this type of ‘hindsight reconstruction’ has occurred in the rejections that are set forth in the February 20, 2007 Office Action. The Applicants respectfully submit that the Patent Office has not established a *prima facie* case of obviousness with respect to the claims of the Applicant’s invention. In particular, the Applicants respectfully submit that the Patent Office has not established a *prima facie* case of obviousness with respect to the Applicant’s invention in Claims 1, 3-8 and 10-12.

The February 20, 2007 Office Action also rejected Claim 2 as being obvious over *Zimmerman* in view of *Grimmell* and further in view of *Mothwurf*. The Applicants respectfully traverse this rejection of Claim 2. The Applicants incorporate by reference and repeat the statements and arguments previously made with respect to the *Zimmerman* reference and the *Grimmell* reference. The February 20, 2007 Office Action stated that it would have been obvious to use photodiode transmitters and phototransistor receptors of *Mothwurf*. The *Mothwurf* reference teaches the use of photodiode transmitters and phototransistor receptors to form a ‘light curtain’ that can be interrupted by the presence of a coin or coin-like article 5. (*Mothwurf*, Column 5, Lines 34-41). There is no teaching or suggestion in the *Mothwurf* reference to use photodiode transmitters and phototransistors receptors in the manner used by the Applicants. The Applicants respectfully submit that the Applicant’s invention as claimed in Claim 2 is not obvious in view of the *Zimmerman* reference or the *Grimmell* reference or the *Mothwurf* reference whether taken singly or in combination. In particular, the Applicants respectfully

submit that the Patent Office has not established a *prima facie* case of obviousness with respect to the Applicant's invention in Claim 2.

The February 20, 2007 Office Action also rejected Claim 9 as being obvious over *Zimmerman* in view of *Grimmell* and further in view of *Zwieg*. The Applicants respectfully traverse this rejection of Claim 9. The Applicants incorporate by reference and repeat the statements and arguments previously made with respect to the *Zimmerman* reference and the *Grimmell* reference. The February 20, 2007 Office Action stated that it would have been obvious to use the different output voltages of *Zwieg*. There is no teaching or suggestion in the *Zwieg* reference to use such high output voltages in the manner used by the Applicants. The Applicants respectfully submit that the Applicant's invention as claimed in Claim 9 is not obvious in view of the *Zimmerman* reference or the *Grimmell* reference or the *Zwieg* reference whether taken singly or in combination. In particular, the Applicants respectfully submit that the Patent Office has not established a *prima facie* case of obviousness with respect to the Applicant's invention in Claim 9.

In view of the amendments to the claims and the arguments set forth above, the Applicant respectfully requests the Examiner to withdraw all of the § 102 rejections and all of the § 103 rejections with respect to Claims 1-13, as amended.

**SUMMARY**

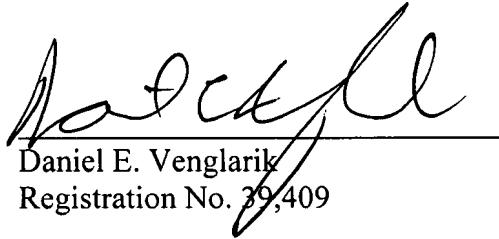
If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at [dvenglarik@munckbutrus.com](mailto:dvenglarik@munckbutrus.com).

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

MUNCK BUTRUS, P.C.

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